

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Scott Dax *et al.*
Serial No. :
Filed :
Title : AMINE AND AMIDE DERIVATIVES AS LIGANDS FOR
THE NEUROPEPTIDE Y Y5 RECEPTOR USEFUL IN THE
TREATMENT OF OBESITY AND OTHER DISORDERS
Art Unit :
Examiner :

I hereby certify that this correspondence is being deposited with the
United States Postal Service as first class mail in an envelope addressed
to: Commissioner of Patents, Washington, D.C. 20231 on

2-7-02

(Date of Deposit)

Ralph R. Palo

(Name of applicant, assignee, or Registered Representative)

(Signature)

2-7-02

(Date of Signature)

Honorable Commissioner of Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Dear Sir:

Please amend the above identified application as follows:

IN THE SPECIFICATION

Please add the following as the first line on page 1 of the specification:

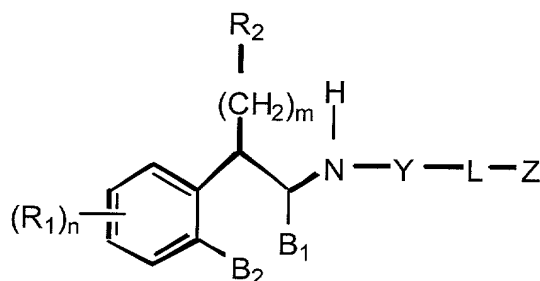
This is a division of application Serial No. 09/626,856, filed July 27, 2000.

IN THE CLAIMS

Cancel claims 1, 6, 7, 10, 11 and 13-16.

Please amend the following claims:

2. (amended) A compound of the formula



wherein R_1 is H; alkyl; substituted alkyl; alkoxy; halo; substituted alkoxy; hydroxy; trifluoralkyl; nitro; amino; alkylamino; cycloalkylamino; cyano; carboxy; cycloalkyl; phenyl; and substituted phenyl;

R_2 is H; hydroxy; alkyl; substituted alkyl; halo; heterocycloalkyl; heteroaryl; phenyl; substituted phenyl; naphthyl and substituted naphthyl;

B_1 is hydrogen;

B_2 is hydrogen; or B_1 and B_2 are methylene and joined together to form a five or six membered ring;

Y is methylene or carbonyl;

Z is selected from the group consisting of aryl; substituted aryl; N-sulfonamido; N-(aryl)sulfonamido; substituted N-(aryl)sulfonamido; arylamido; substituted arylamido; arylureido; substituted arylureido; arylacetamido; substituted arylacetamido; (aryloxy)carbonylamino; substituted (aryloxy)carbonylamino; 2,3-dihydro-2-oxo-1H-benzimidazol-1-yl; substituted 2,3-dihydro-2-oxo-1H-benzimidazol-1-yl; 1-aryl-2,3-dihydro-4-oxo-imidazol-5,5-diyl; and substituted 1-aryl-2,3-dihydro-4-oxo-imidazol-5,5-diyl;

L is C₁₋₆alkylene; C₂₋₁₀ alkenylene; C₂₋₁₀ alkynylene; C₃₋₇cycloalkylene;
C₃₋₇cycloalkylC₁₋₄alkylene; arylC₁₋₄ alkylene; α -aminoC₄₋₇alkylene;
(N-methylene)piperidin-4-yl; substituted (N-methylene)piperidin-4-yl;
(N-methylene)piperazin-4-yl; (N-methylene)pyrrolidin-3-yl; (N-methylene)-4-acetyl-
piperidin-4-yl; and (N-methylene)piperidin-4,4-diyl;

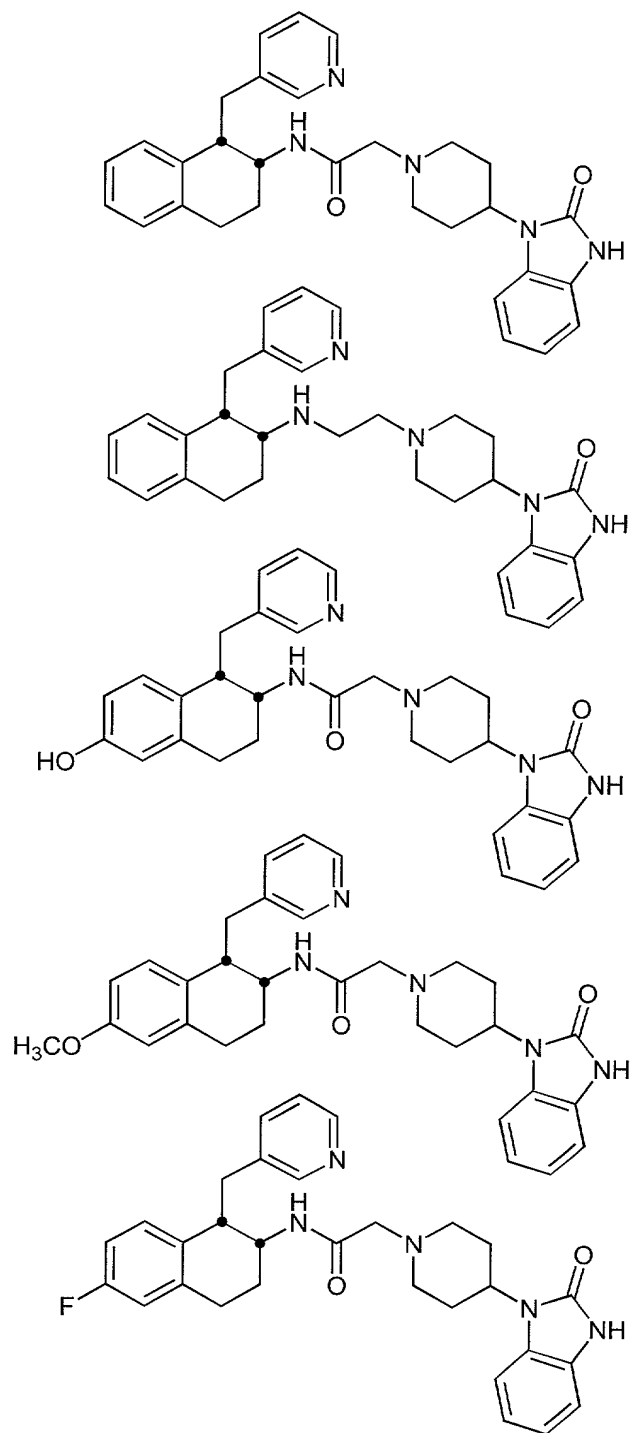
n is 1-2;

m is 1-3;

p is 1-3; and

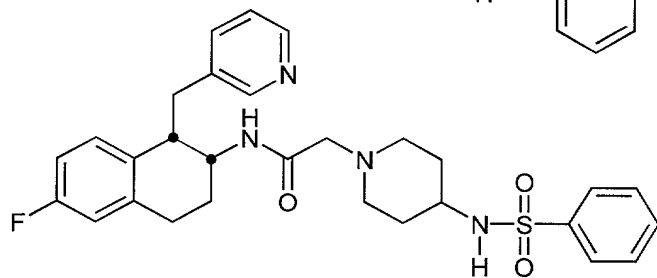
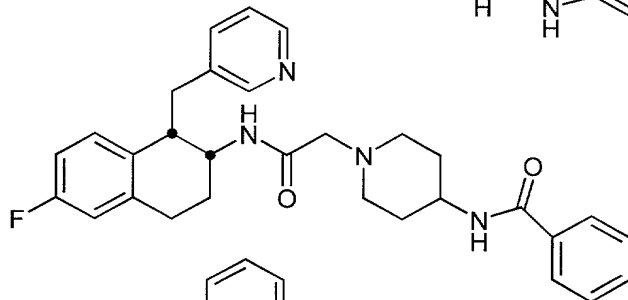
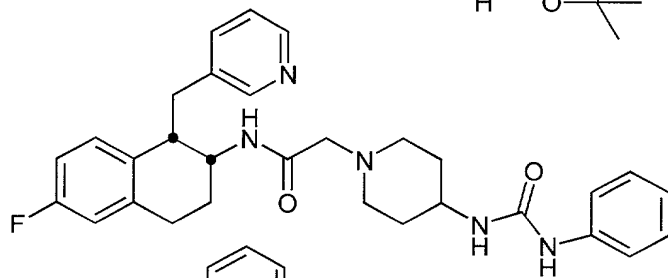
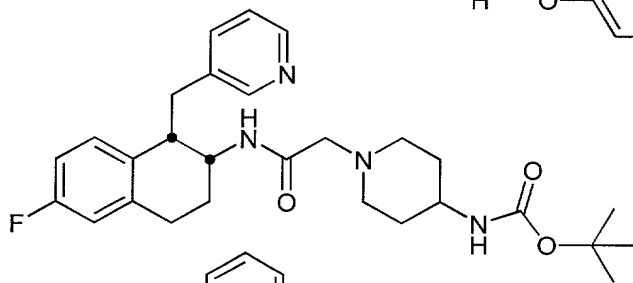
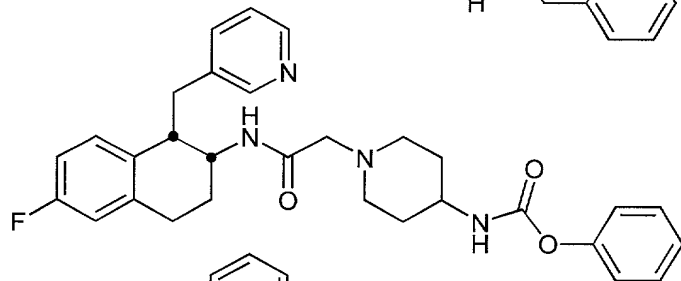
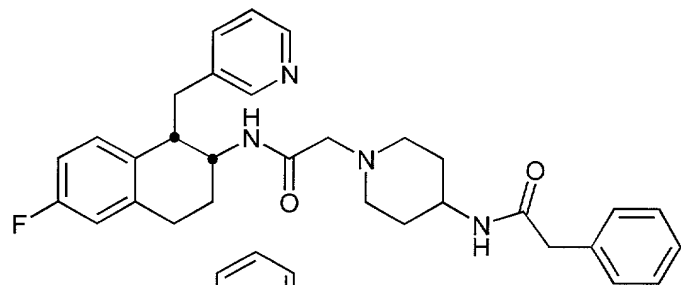
q is 1-3.

3. (amended) A compound of claim 2 selected from the group consisting of:



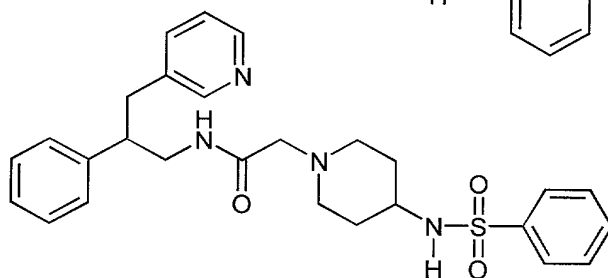
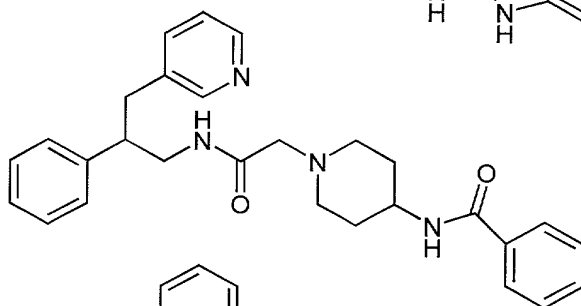
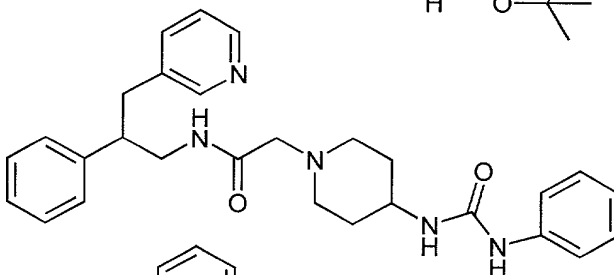
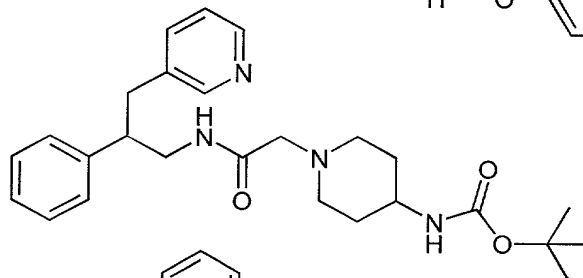
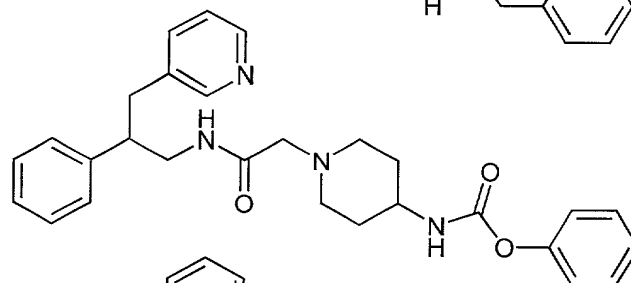
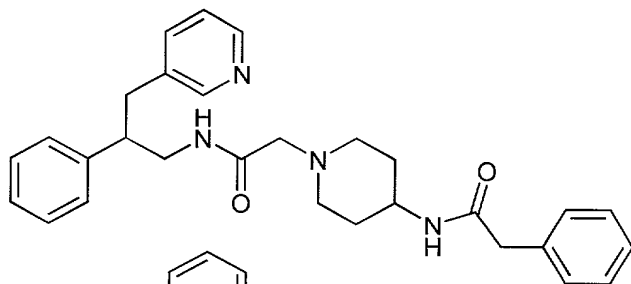
and

4. (amended) A compound of claim 2 selected from the group consisting of:



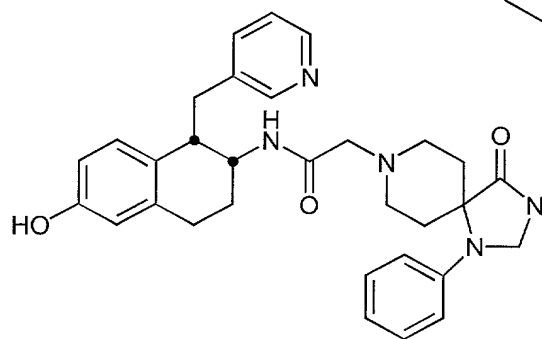
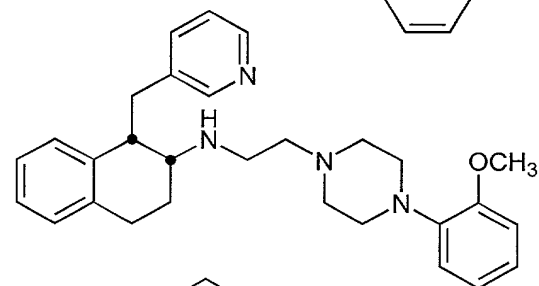
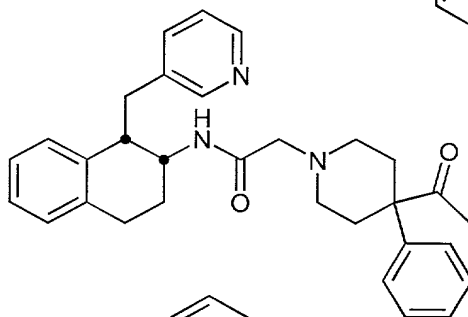
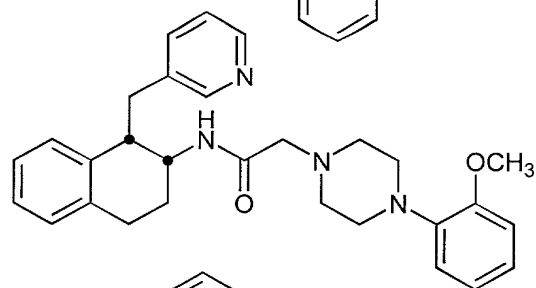
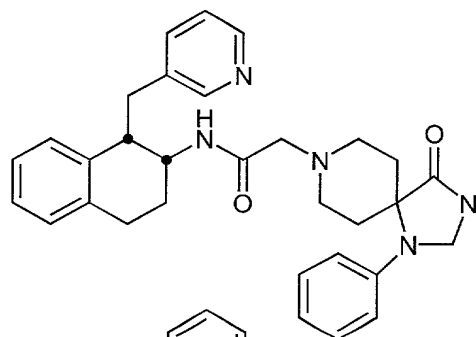
and

5. (amended) A compound of claim 2 selected from the group consisting of:



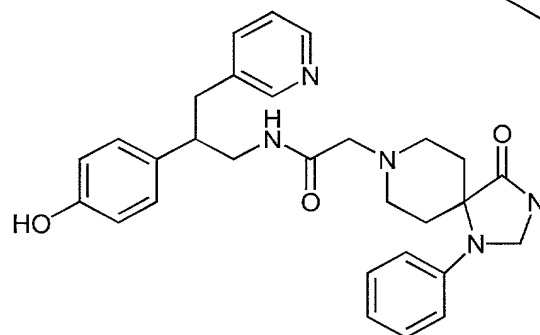
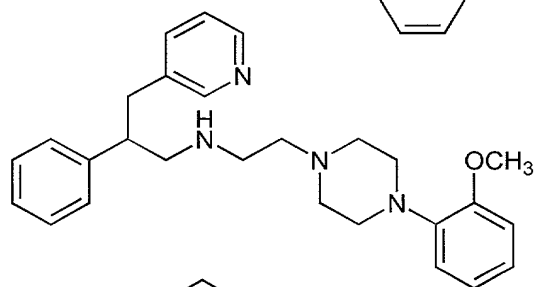
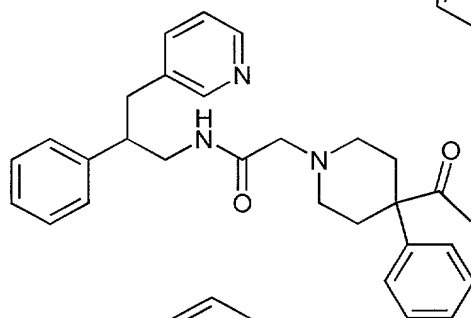
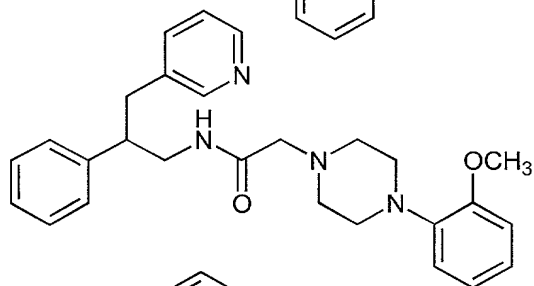
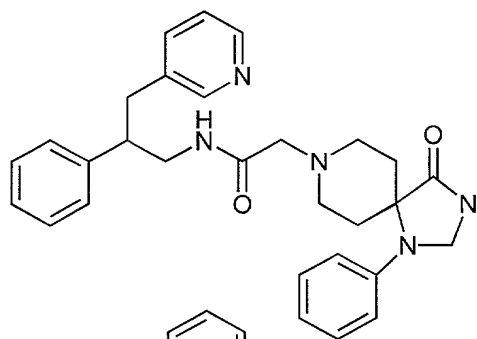
and

8. (amended) A compound of claim 2 selected from the group consisting of:



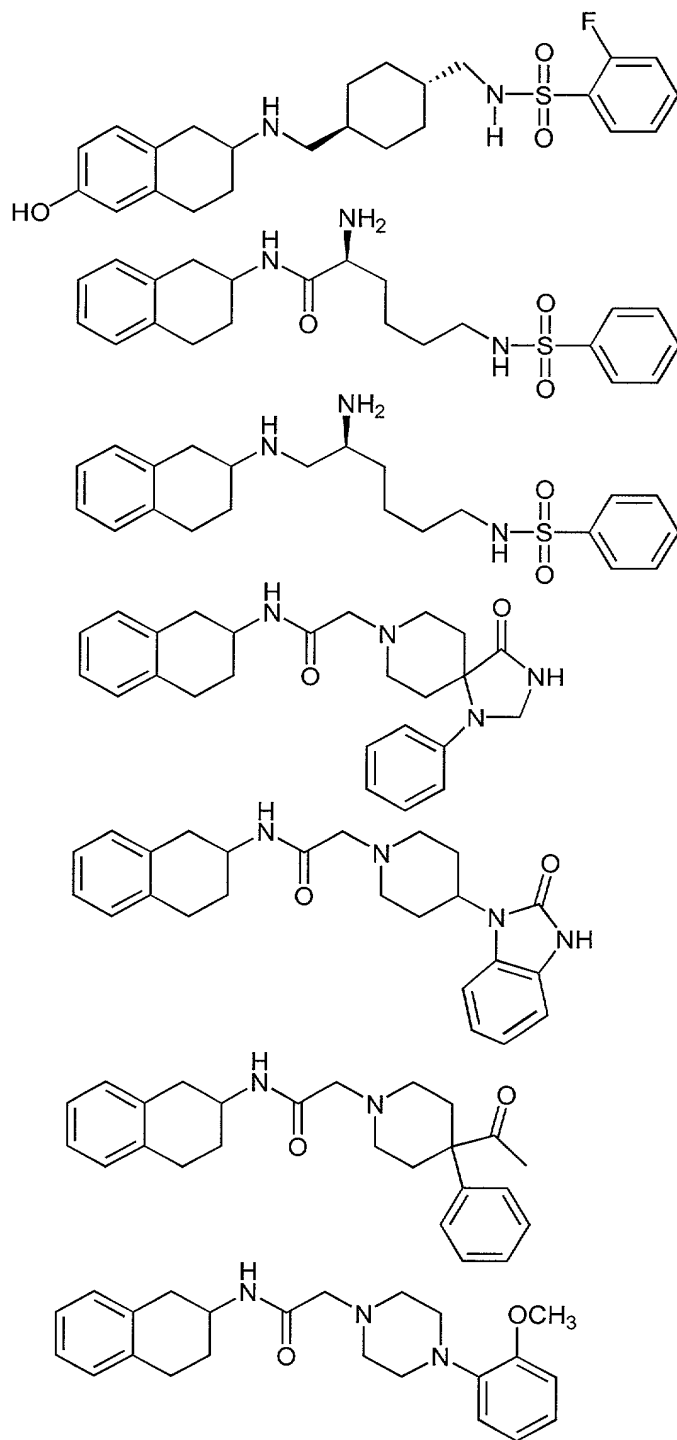
and

9. (amended) A compound of claim 2 selected from the group consisting of:



and

12. (amended) A compound of claim 2 selected from the group consisting of:



and

Please add the following new claims:

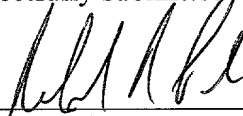
17. A method of treating disorders and diseases associated with NPY receptor subtype 5 comprising administering to a mammal in need of such treatment a therapeutically effective amount of a compound of claim 2.
18. A pharmaceutical composition for the treatment of diseases or disorders associated with the NPY Y5 receptor subtype comprising a therapeutically effective amount of a compound of claim 2 and a pharmaceutically acceptable carrier.
19. A pharmaceutical composition according to claim 18 for the treatment of disorders or disease states caused by eating disorders, obesity, bulimia nervosa, diabetes, memory loss, epileptic seizures, migraine, sleep disturbances, pain, sexual/reproductive disorders, depression and anxiety.

REMARKS

This application is a division of application Serial No. 09/626,856, filed July 27, 2000. Claims 1, 6, 7, 10, 11 and 13-16 in the original application have been canceled. Claims 2-5, 8, 9 and 12 have been amended to correct the dependency. Claims 2-5, 8, 9 and 12 correspond to claims 2-5, 8, 9 and 12 in the original application. New claims 17, 18 and 19 have been added. Claims 17, 18 and 19 claim the subject matter of original claims 14, 15 and 16 but are now dependent on claim 2. After entry of this amendment claims 2-5, 8, 9, 12, 17, 18 and 19 will remain pending and under consideration.

Attached hereto is a marked-up version of the changes made to the specification by the current amendment. The attached page is captioned **"Version with markings to show changes made."**

Respectfully submitted,



Ralph R. Palo
Reg. No. #29,486
Attorney for Applicants

Johnson & Johnson
One Johnson & Johnson Plaza
New Brunswick, NJ 08933-7003
(732)524-2818
DATE: February 7, 2002

"Version with markings to show changes made."

Please amend the above identified application as follows:

IN THE SPECIFICATION

Please add the following as the first line on page 1 of the specification:

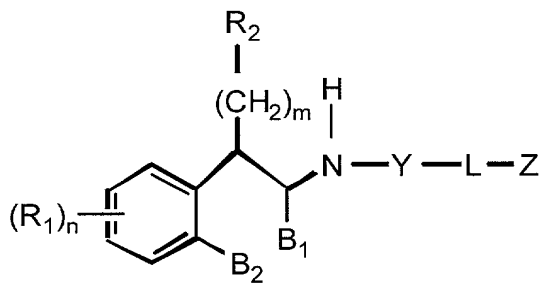
This is a division of application Serial No. 09/626,856, filed July 27, 2000.

IN THE CLAIMS

Cancel claims 1, 6, 7, 10, 11 and 13-16.

Please amend the following claims:

2. (amended) A compound of [claim 1] the formula



wherein R_1 is H; alkyl; substituted alkyl; alkoxy; halo; substituted alkoxy; hydroxy; trifluoralkyl; nitro; amino; alkylamino; cycloalkylamino; cyano; carboxy; cycloalkyl; phenyl; and substituted phenyl;

R_2 is H; hydroxy; alkyl; substituted alkyl; halo; heterocycloalkyl; heteroaryl; phenyl; substituted phenyl; naphthyl and substituted naphthyl;

B_1 is hydrogen;

B_2 is hydrogen; or B_1 and B_2 are methylene and joined together to form a five or six membered ring;

Y is methylene or carbonyl;

Z is selected from the group consisting of aryl; substituted aryl; N-sulfonamido; N-(aryl)sulfonamido; substituted N-(aryl)sulfonamido; arylamido; substituted arylamido; arylureido; substituted arylureido; arylacetamido; substituted arylacetamido; (aryloxy)carbonylamino; substituted (aryloxy)carbonylamino; 2,3-dihydro-2-oxo-1*H*-benzimidazol-1-yl; substituted 2,3-dihydro-2-oxo-1*H*-benzimidazol-1-yl; 1-aryl-2,3-dihydro-4-oxo-imidazol-5,5-diyl; and substituted 1-aryl-2,3-dihydro-4-oxo-imidazol-5,5-diyl;

L is C₁₋₆alkylene; C₂₋₁₀ alkenylene; C₂₋₁₀ alkynylene; C₃₋₇cycloalkylene; C₃₋₇cycloalkylC₁₋₄alkylene; arylC₁₋₄ alkylene; α -aminoC₄₋₇alkylene; (N-methylene)piperidin-4-yl; substituted (N-methylene)piperidin-4-yl; (N-methylene)piperazin-4-yl; (N-methylene)pyrrolidin-3-yl; (N-methylene)-4-acetyl-piperidin-4-yl; and (N-methylene)piperidin-4,4-diyl;

n is 1-2;

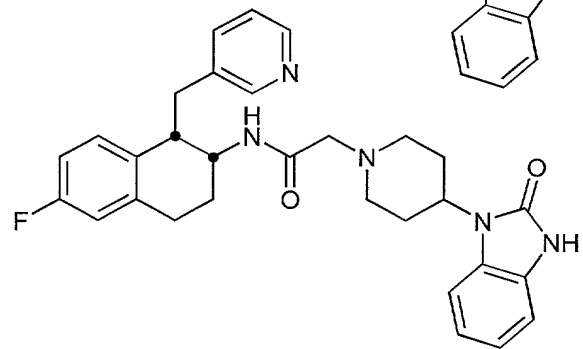
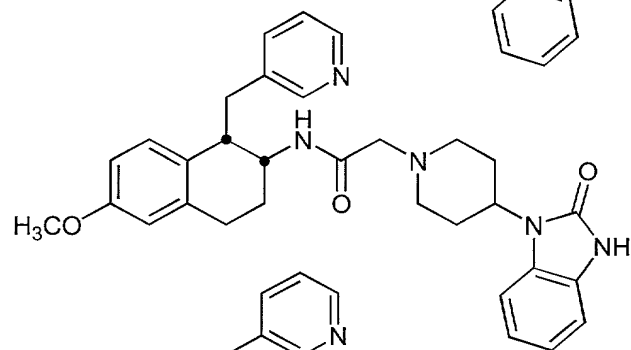
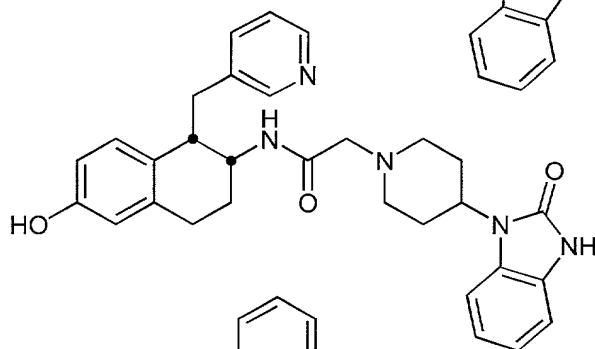
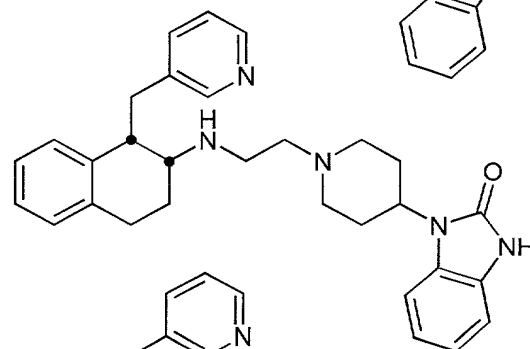
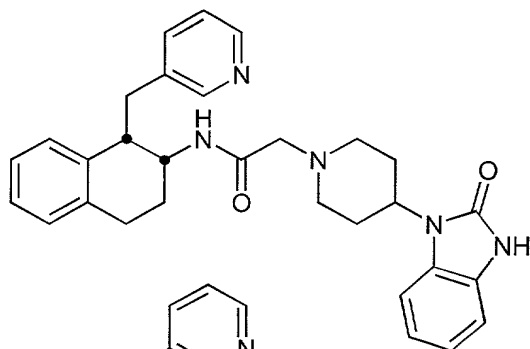
m is 1-3;

p is 1-3; and

q is 1-3.

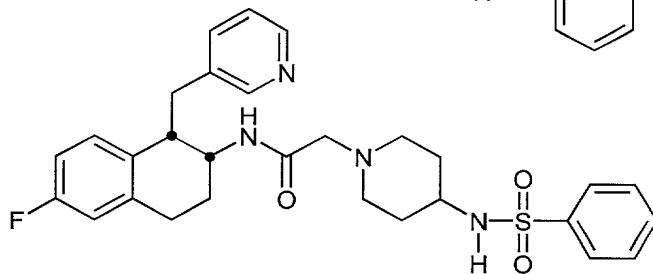
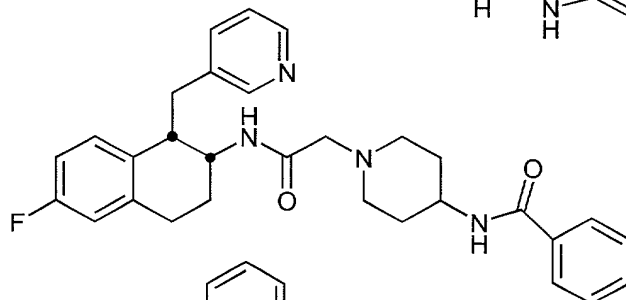
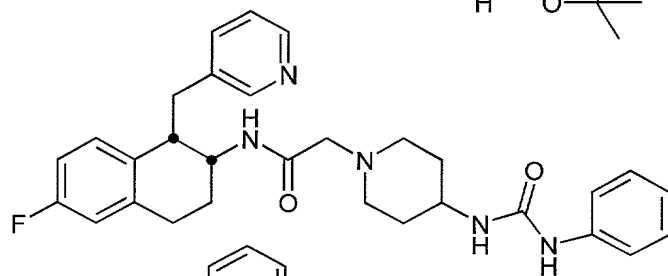
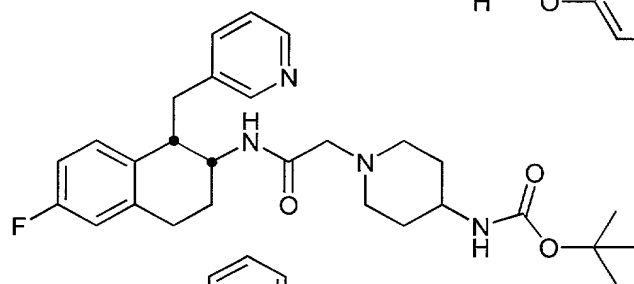
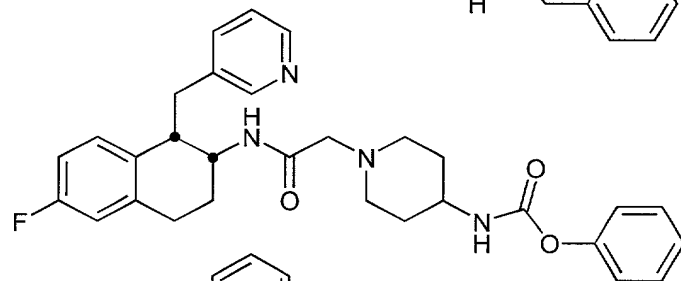
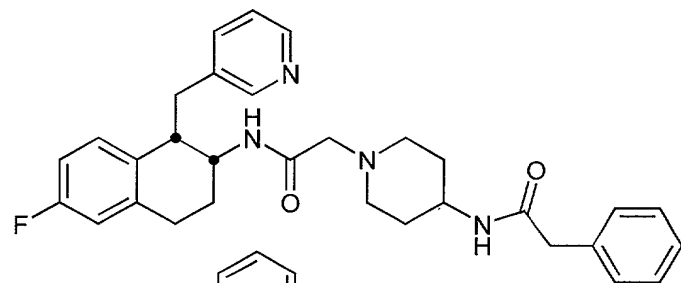
20240220 14:32:00

3. (amended) A compound of claim [1] **2** selected from the group consisting of:



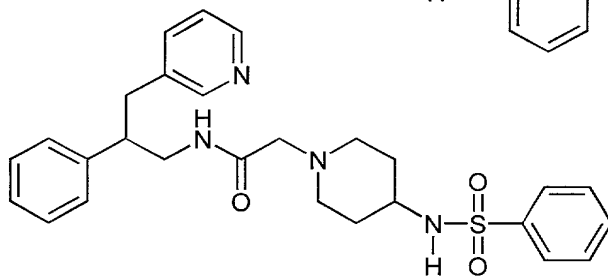
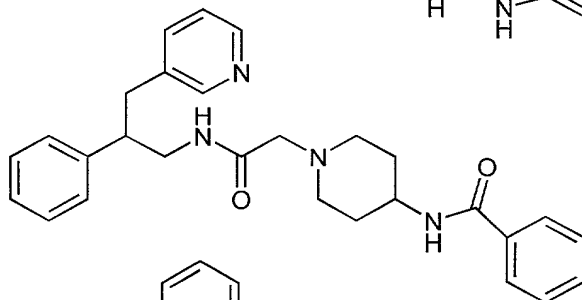
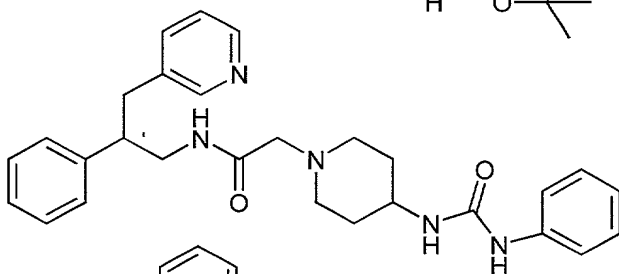
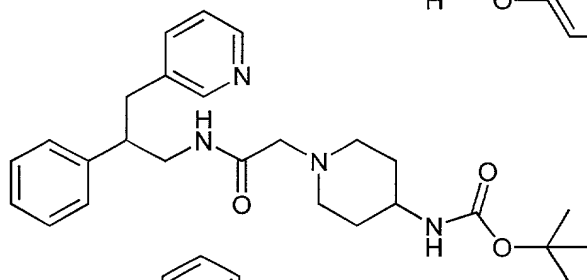
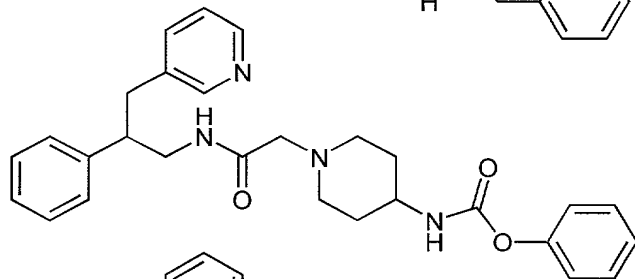
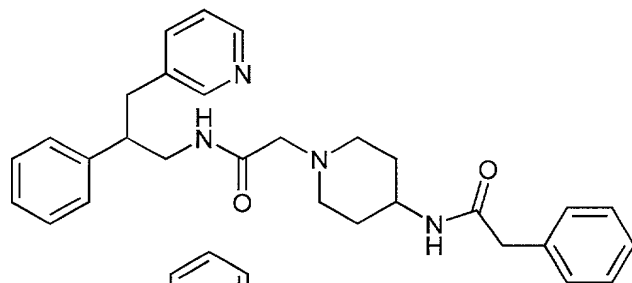
and

4. (amended) A compound of claim [1] 2 selected from the group consisting of:



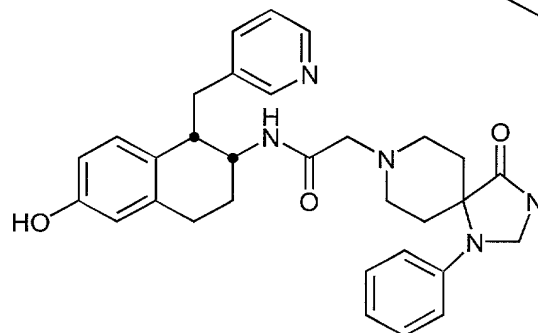
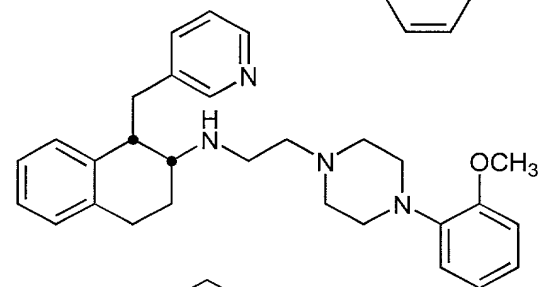
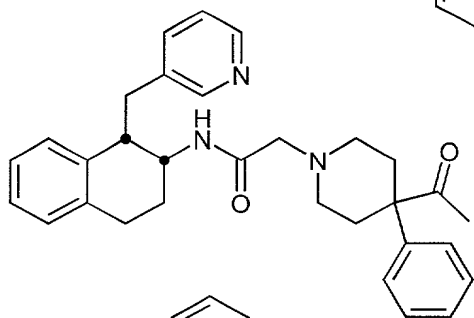
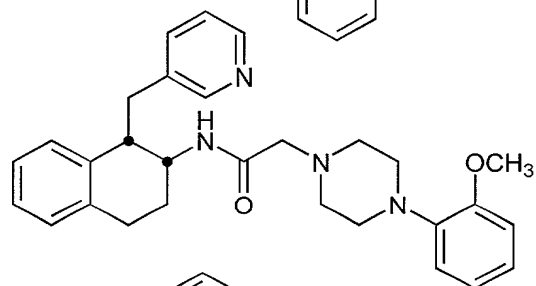
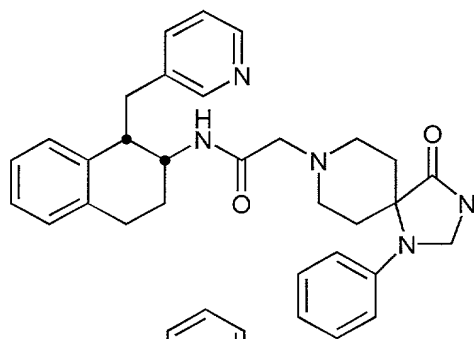
and

5. (amended) A compound of claim [1] **2** selected from the group consisting of:



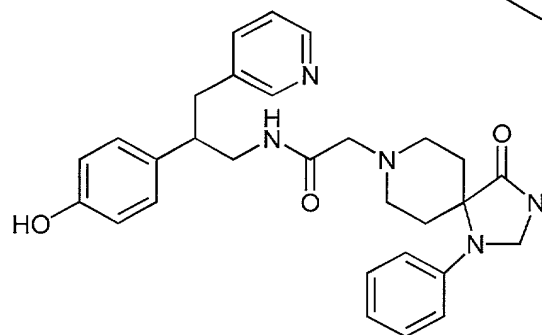
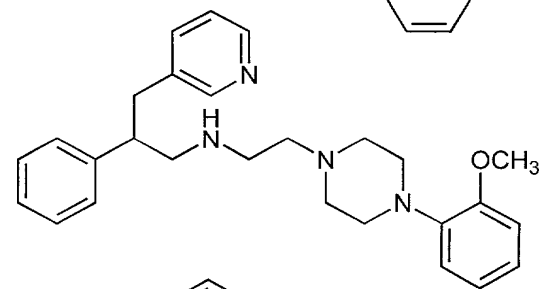
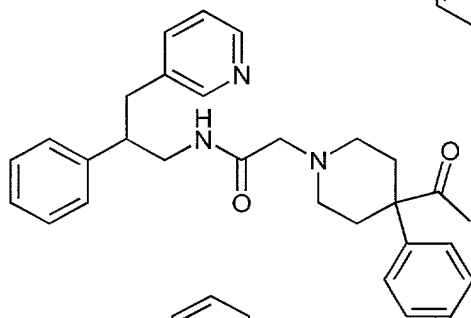
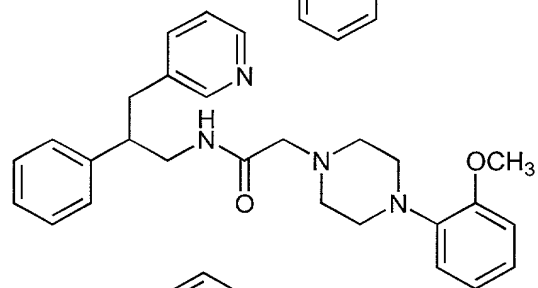
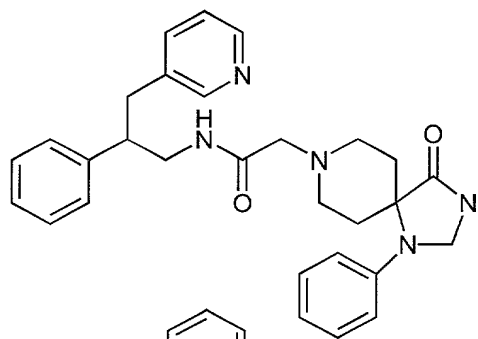
and

8. (amended) A compound of claim [1] 2 selected from the group consisting of:



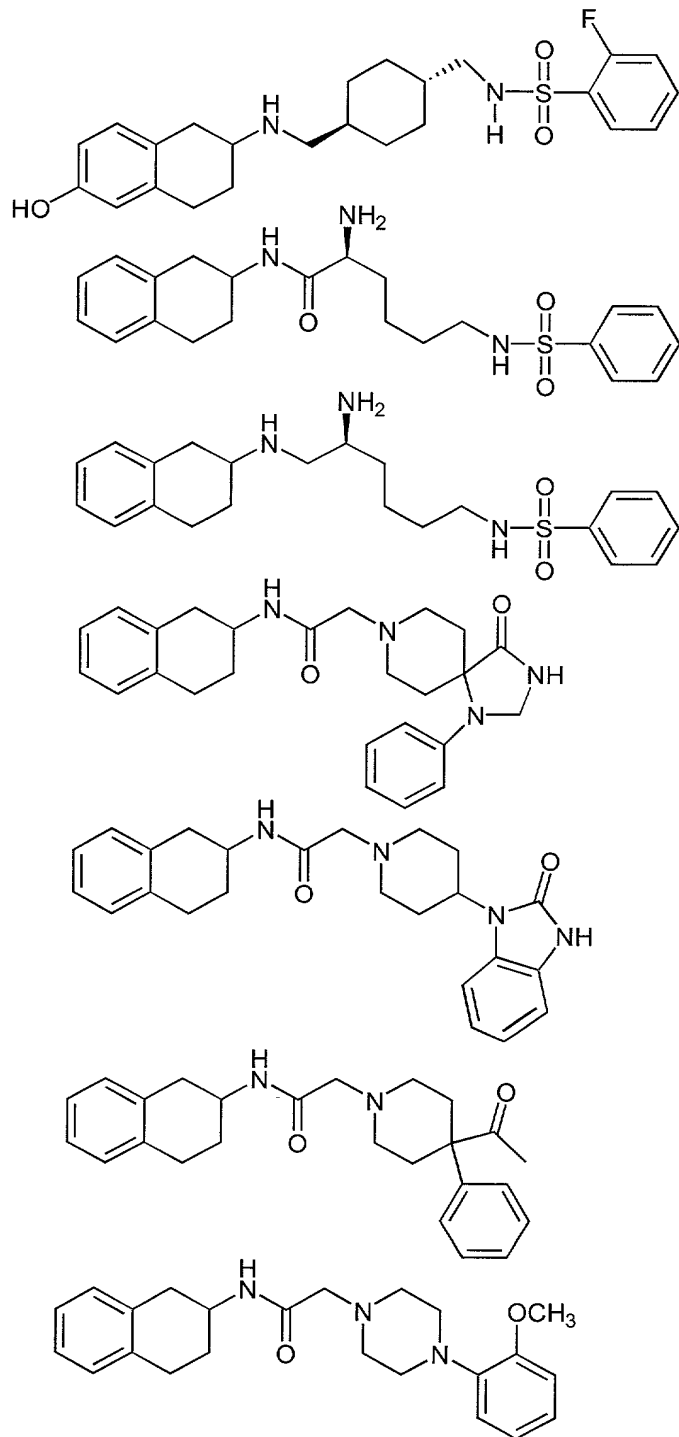
and

9. (amended) A compound of claim [1] 2 selected from the group consisting of:



and

12. (amended) A compound of claim [1] 2 selected from the group consisting of:



and

Please add the following new claims:

17. A method of treating disorders and diseases associated with NPY receptor subtype 5 comprising administering to a mammal in need of such treatment a therapeutically effective amount of a compound of claim 2.
18. A pharmaceutical composition for the treatment of diseases or disorders associated with the NPY Y5 receptor subtype comprising a therapeutically effective amount of a compound of claim 2 and a pharmaceutically acceptable carrier.
19. A pharmaceutical composition according to claim 18 for the treatment of disorders or disease states caused by eating disorders, obesity, bulimia nervosa, diabetes, memory loss, epileptic seizures, migraine, sleep disturbances, pain, sexual/reproductive disorders, depression and anxiety.